



Sprint Nextel  
2001 Edmund Halley Drive  
Reston, VA 20191

September 26, 2008

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
TW-A325  
445 12<sup>th</sup> St., SW  
Washington, D.C. 20554

**Re: Developing a Unified Intercarrier Compensation Regime, CC Docket  
No. 01-92; IP-Enabled Services, WC Docket No. 04-36**

Dear Ms. Dortch:

In previous meetings with Commission staff in the above captioned proceedings, Sprint Nextel has advocated the use of a \$.0007 per minute rate cap for terminating traffic. To demonstrate the reasonableness of this proposal, Sprint Nextel hereby provides market and cost evidence that such a cap is reasonable and compensatory. As explained in the attached white paper, Sprint Nextel alone has hundreds of interconnection agreements with other carriers of all types and sizes which provide for positive termination rates at or below \$.0007 per minute. Where rates exceed the cost of performing the traffic termination function (*i.e.*, rates higher than \$.0007), the resulting market distortion permits abuse such as the plethora of traffic pumping schemes.

In addition to this market evidence, arbitrated studies of the cost of performing the traffic termination function, and negotiated rates for the provision of transport and termination network elements, further suggest that a \$.0007 per minute rate cap is a just and reasonable parameter for all types of traffic. If termination rates are set to reflect long-run incremental costs – in particular, the long-run incremental cost of a packet-based network – the \$.0007 rate cap must be seen to be not just reasonable, but in fact generous, compensation for traffic termination.

I request that this letter, which is being filed electronically, be placed in the file for the above-captioned proceedings.

Please contact me at (703) 433-4503 with any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Norina Moy".

Norina Moy  
Director, Government Affairs

c: Don Stockdale  
Jane Jackson  
Victoria Goldberg  
Ted Burmeister  
Jay Atkinson  
Alex Minard  
Doug Slotten  
Rebekah Goodheart  
Lynne Engledow  
Katie King  
Marcus Maher  
Matt Warner  
Nicholas Degani  
Randy Clarke  
Al Lewis  
Jennifer McKee

## **Evidence Supporting a \$0.0007 Per Minute Rate Cap for Terminating Traffic**

### Introduction

The Communications Act of 1934, as amended (Act), grants the Commission broad authority to adopt rules implementing the requirement that all local exchange carriers “establish reciprocal compensation arrangements for the transport and termination of telecommunications.”<sup>1</sup> Thus, the Commission’s jurisdiction under this provision extends to all terminating telecommunications, including interstate and intrastate exchange access services. Section 251(g) of the Act implicitly recognized the broad sweep of the Commission’s authority over the “transport and termination of telecommunications” by preserving the access charge regimes that were in place at the time the Telecommunications Act of 1996 was adopted until such time as they were “explicitly superseded by regulations prescribed by the Commission ...”<sup>2</sup> In short, section 251(b)(5) grants the Commission the expansive authority required to undertake comprehensive reform of intercarrier compensation arrangements.

The purpose of this analysis is to present evidence demonstrating that the \$0.0007 per-minute rate cap established for ISP-bound traffic termination is fully compensatory for traffic termination functions of all types of traffic.<sup>3</sup> Market evidence demonstrates that carriers of all types and sizes are currently exchanging vast amounts of traffic subject to termination rates at or below \$0.0007 per minute. Moreover, the evidence shows that where rates greater than this level are applied, the resulting market distortion permits abuse, such as the plethora of traffic pumping schemes which are possible only because traffic termination rates greatly exceed the cost of performing the traffic termination function.<sup>4</sup> In addition to this market evidence, there is significant evidence regarding the cost of performing the traffic termination function in the arbitrated cost studies and negotiated rates for the provision of transport and termination network elements that provides further information for analyzing the incremental cost of traffic termination. Together, this market and cost evidence demonstrates that a rate cap of \$0.0007 per minute for intercarrier compensation arrangements is a just and reasonable parameter for all types of traffic.

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<sup>1</sup> 47 U.S.C. § 251(b)(5).

<sup>2</sup> 47 U.S.C. § 251(g).

<sup>3</sup> *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, Order on Remand and Report and Order, 16 FCC Rcd 9151 (2001) (“ISP Remand Order”).

<sup>4</sup> See *Establishing Just and Reasonable Rates for Local Exchange Carriers*, Notice of Proposed Rulemaking, (Oct. 2, 2007) (FCC 07-176); see also *ISP Remand Order* at ¶ 4 (“Carriers have every incentive to compete, not on the basis of quality and efficiency, but on the basis of their ability to shift costs to other carriers, a troubling distortion that prevents market forces from distributing limited investment resources to their most efficient uses.”).

## Market Evidence

Since the inception of the ISP-bound traffic rule, carriers of all types and sizes have entered into numerous agreements for the exchange of vast quantities of non-ISP-bound minutes at rates that are at or below the \$0.0007 cap. Sprint Nextel's iDEN, CDMA, and competitive local exchange carrier (CLEC) entities alone have hundreds of interconnection agreements with carriers of all types and sizes under which they exchange huge volumes of their non-access traffic at a positive rate that is either at or below \$0.0007 per minute. Similarly, Level 3 has submitted record evidence describing interconnection agreements it has reached with several of the largest incumbent local exchange carriers (ILECs) in the country, which provide for traffic termination rates substantially below \$0.0007 per minute.<sup>5</sup> Other carriers almost certainly have opted into these agreements or entered into similar agreements. The willingness of carriers to exchange massive volumes of traffic at termination rates of \$0.0007 or less per minute is strong evidence that a \$0.0007 rate cap is compensatory.

In contrast to the functional exchange of traffic under arrangements where termination rates are capped at \$0.0007, market dysfunction is most evident where rates exceeding \$0.0007 per minute are imposed. If traffic termination rates were truly based on the incremental cost of performing the traffic termination function, carriers would be indifferent to performing traffic termination and would have no incentive to take specific action to increase volumes of incoming traffic on their network. The proliferation of traffic pumping schemes, involving hundreds of millions of dollars and billions of minutes,<sup>6</sup> is dispositive of the abuses that result from above-cost traffic termination rates. Traffic pumping activities invariably occur where the perpetrator imposes traffic termination rates at the current interstate and intrastate switched access rate levels. That these access rates are above the cost of traffic termination is evidenced by the fact that the traffic pumpers are able to provide "free" conference calling and similar services, covering the additional cost of the conference calling from the above-cost access rates.<sup>7</sup> It is Sprint Nextel's experience that most traffic subjected to traffic pumping occurs at interstate access rates, which are typically lower than intrastate rates. This indicates that even the interstate access rates greatly exceed the incremental cost of traffic termination. Sprint Nextel is unaware of any traffic pumping schemes perpetrated under interconnection agreements that provide for traffic termination at rates at or below \$0.0007 per minute.

For nearly a decade under the ISP-bound rate cap regime, the industry has terminated vast amounts of traffic under arrangements where the traffic termination rate is at or below \$0.0007, which suggests that such a rate is fully compensatory of all economic

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<sup>5</sup> See Letter from John Nakahata to Marlene Dortch, FCC, Docket Nos. 99-68, 01-92 (Aug. 18, 2008).

<sup>6</sup> See, e.g., Comments filed on December 17, 2007 by Sprint Nextel, AT&T, Verizon, Qwest, MetroPCS, and Leap Wireless in WC Docket No. 07-135 describing the sharp increases in traffic volumes attributable to traffic pumping. Subsequent *ex parte* presentations by Sprint Nextel and other carriers demonstrate that the problem continues to the present day.

<sup>7</sup> These calls are only "free" in the sense that the immediate consumer of the call is not charged separately for the duration of the call. But all consumers are ultimately subject to the cost imposed on carriers by imposition of the inflated access rates.

costs of providing the termination. Market distortions that are made possible by above-cost rates are evident only where entities have been able to impose traffic termination rates that exceed this level.

### Cost Evidence

The Telecommunications Act of 1996 (Telecom Act) requires incumbent LECs to make unbundled network elements (UNEs) available at cost-based rates.<sup>8</sup> The Commission adopted the Total Element Long Run Incremental Cost (TELRIC) methodology for use by states in determining the prices of UNEs. Carriers interested in competing in local telecommunications marketplaces sought agreements with incumbent LECs to utilize UNEs, either arbitrating through contested cost proceedings following the TELRIC pricing methodology, or negotiating agreements to obtain UNEs at rates consistent with the TELRIC methodology. As a result, in a few years following the 1996 Telecom Act, UNE rates were established throughout the United States, including TELRIC-based rates for switching and transport elements. Since transport and switching functions are required for traffic termination, these TELRIC rates are instructive in evaluating the incremental cost of traffic termination. The March 2006 "Survey of Unbundled Network Element Prices in the United States," included as Attachment 1, provides a useful basis for this evaluation and indicates that capping transport and switching at \$0.0007 per minute is well within the zone of reasonableness.<sup>9</sup>

A summary of the survey findings is shown in the table below:

	Switching	Common Transport
National Weighted Average	\$0.00058	\$0.00057
High	\$0.00611	\$0.00727
Low	\$0.00004	\$0.00010
Average w/o outliers	\$0.00047	\$0.00055

Notes: (1) Weighting based on lines  
(2) Used the tandem switching rates because several states did not adopt per-minute rates for the switching element and because the switching element includes functions unnecessary for traffic termination  
(3) If transport rates structured as fixed and per-mile, added charges for 10 miles to the fixed charge  
(4) If a range of rates were given, a simple average was used  
(5) Outliers defined as those rates outside of one standard deviation

The TELRIC per-minute rates are well below historical interstate switched access rates, which currently average more than \$0.01 per minute, and in most instances more closely approximate the \$0.0007 cap. In 34 states covered by the 2006 survey, the rate for switching (which is all that is required for traffic termination when a carrier directly connects to the switch) was below \$0.0007 per minute. And in 13 states, the combined switching and transport rates were below \$0.0007 per minute. Interestingly, the rates for companies in the survey with a relatively small number of lines were often lower than the

<sup>8</sup> See 47 U.S.C. § 252(d)(1)(A).

<sup>9</sup> "A Survey of Unbundled Network Element Prices in the United States," Billy Jack Gregg, updated March 2006.

rates for companies with a large number of lines, indicating scale and scope economies do not significantly affect the cost of traffic termination. For example, Rhode Island (491K lines), West Virginia (808K), Kentucky (1.1M), Mississippi (1.2M), South Carolina (1.4M), Alabama (1.8), and Wisconsin (1.8M) all have lower switching rates than Texas (8.8M), New York (10.2M) and California (16.5M). Alabama, Rhode Island, Mississippi, and South Carolina had combined switching and transport rates lower than Texas, New York, and California. Indeed, the smallest company included in the survey (ACS Alaska with 37K lines) has combined switching and transport rates lower than the largest company in the survey (SBC CA with 16.5M lines).

The UNE rates provide useful information about transport and switching costs, demonstrating clearly that current switched access rates are well above the cost of providing transport and termination. If anything, however, the UNE rates based on TELRIC significantly overstate the incremental cost of terminating a minute of traffic. As discussed below, actual current incremental costs are significantly lower than UNE rates because: the ILECs argued for lower prices when they were payers, as in ISP-bound traffic, than when they were payees, as in TELRIC prices; the more economically appropriate long run incremental cost (LRIC) rather than TELRIC should be applied to develop the price of transport and termination; and costs should be based on the more efficient modern packet (rather than circuit-switched) network.

#### ILEC Incentives Regarding Establishing UNE Prices

The ILECs faced opposite incentives in setting UNE rates from those they faced in setting the rates for traffic termination. Since the ILECs would be *recipients* of UNE rates, their incentive was to have those rates set as high as possible. In contrast, for traffic termination rates, the ILECs would be not only *recipients* but also *payers* for traffic terminating on another carrier's network. The ILEC incentive was highlighted in the ISP-bound traffic proceeding, which set the rate that the *ILECs* were going to pay to CLECs for traffic terminated on the CLECs' networks. In that case, where the ILECs' motivation was to minimize rates paid, the ILECs were active and influential in obtaining the current \$0.0007 per-minute rate cap on traffic termination. Subsequent to the adoption of the rate cap, incumbents voluntarily offered to enter into interconnection agreements with all types of carriers to receive traffic under the \$0.0007 rate cap rules. This voluntary offer to terminate traffic for other carriers at the \$0.0007 per-minute rate cap is evidence that this rate better reflects their cost of traffic termination than their higher UNE rates.

#### TELRIC v. LRIC

The Commission established the TELRIC methodology pursuant to Section 252(d)(1) of the Telecom Act, which governs the pricing standard for UNEs. Section 252(d)(1) provides that the just and reasonable rate for unbundled network elements shall be based on the cost of providing the network element.<sup>10</sup> TELRIC uses the entire set of demands

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<sup>10</sup> 47 U.S.C. § 252(d)(1) ("Determinations by a State commission . . . of the just and reasonable rate for network elements . . . (A) shall be- (i) based on the cost (determined without reference to a rate-of-return or

– all types of traffic, features and functions - and determines the present cost of building a network to serve all those demands, and then divides that cost by the sum of all demands.<sup>11</sup> TELRIC is thus a “marginal” cost, but the “marginal” demand is the entire set of all demands that utilize the facility involved, not just an individual minute of traffic for a particular service that uses the facility. In short, this means that the UNE rates were set in a manner designed for complete recovery of the entire network element. In the case of switching, TELRIC covers the cost of the entire switching network element, including demands (e.g., dial-tone, call setup, custom calling features, call record capturing, etc.) that go well beyond mere traffic termination. In the case of transport, TELRIC covers the cost of the entire transport facility including demands for all services that traverse the facility which include many demands that have nothing to do with traffic termination.

The Telecom Act’s language governing the pricing standard for traffic transport and termination is different than that for network elements. Specifically, under Section 252(d)(2), just and reasonable compensation for traffic termination is based on “a reasonable approximation of the additional costs of terminating such calls.”<sup>12</sup> There is no requirement to recover the cost of the entire switch or transport facility. Rather, the compensation is tied to the “additional cost” associated with handling a call that comes in from another carrier. The service is a single call, making LRIC much more appropriate than TELRIC for traffic termination. TELRIC is always greater than LRIC because TELRIC includes the entire cost of the facility that makes up the network element.

In contrast to TELRIC, a LRIC analysis of a particular service offering reflects the long run incremental cost of a single service, which in the case of traffic termination is the incremental cost of terminating a single call minute. LRIC is closer to the economic concept of marginal cost, because it includes only the present cost of serving an additional increment of demand over facilities that are used to provide multiple services. So, if the increment of interest is one more minute of traffic of a particular service, the LRIC would be virtually zero – the plant is already in place, and the cost of switching and transporting the minute is minimal, reflecting primarily the cost of the processing time in the switch and the power needed to send the message down the pipe. Allowing a carrier to charge any rate that is greater than LRIC gives the carrier more than the marginal cost of providing the individual minute, contributes to its common plant, and is therefore “generous.” It also exceeds the “additional costs” standard that the Telecom Act applies to these rates. The TELRIC-based UNE rates therefore overstate the appropriate cost of traffic termination.

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other rate-based proceeding) of providing the . . . network element, and (ii) nondiscriminatory, and (B) may include a reasonable profit”).

<sup>11</sup> See, e.g., *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, 11 FCC Rcd 15499, 15850 (para. 690) (1996).

<sup>12</sup> 47 U.S.C. § 252(d)(2) (“[A] State commission shall not consider the terms and conditions for reciprocal compensation to be just and reasonable unless – (i) such terms and conditions provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier’s network facilities of calls that originate on the network facilities of the other carrier; and (ii) such terms and conditions determine such costs on the basis of a reasonable approximation of the additional costs of terminating such calls.”)

## Packet v Circuit-Switched Networks

The UNE rate survey was compiled more than two years ago, but the rates in that survey are the result of much older TELRIC cost studies and were based on incumbent LEC circuit-switched network architecture. Today, packet networks have become the deployment norm.<sup>13</sup> Packet-based networks are being rapidly deployed because they efficiently handle the data, video, and voice applications consumers routinely demand and have much lower unit costs than circuit-switched networks.<sup>14</sup> Packet technology is inherently more efficient for call processing than circuit-switched technology. For example, with circuit-switched technology, a five minute call dedicates network resources for five minutes, despite the fact that there are large amounts of silent time. Packet technology allows for use of silent periods to process other packets including other calls and data services. That the cost of call processing and delivery in packet networks is lower than in the circuit switched networks on which the UNE rates are based is an additional reason to conclude that historic UNE rates overstate the cost of traffic termination.

## Conclusion

The vast amounts of traffic that have been and continue to be terminated under arrangements where the rate is \$0.0007 per minute or lower provide evidence that a rate cap of \$0.0007 is fully compensatory for traffic termination. The traffic pumping schemes demonstrate that the interstate and intrastate access rates which exceed \$0.0007 per minute are outdated and lack any basis in the actual cost of traffic termination. The historical TELRIC-based UNE rates provide a useful “high-side” for evaluating the cost of performing the transport and switching functions that make up traffic termination. Taking into consideration the fact that TELRIC (the cost standard for setting UNEs) is greater than LRIC (the appropriate cost standard under the Telecom Act for traffic

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<sup>13</sup> The record in several of the FCC’s IP proceedings makes it clear that the industry is rapidly moving from circuit-switched to IP-based packet networks. *See, e.g.*, Petition for Forbearance from Enforcement of Rule 69.5(a), 47 U.S.C. § 251(b), and Commission Orders on the ESP Exemption filed by Embarq Local Operating Companies, WC Docket No. 08-08, p. 12 (“It is widely known that IP-originated voice traffic has been growing dramatically. IP-telephony is rapidly becoming the standard in the enterprise market.”); Petition for Forbearance from Section 251(g) of the Communications Act and Section 51.701(b)(1) and 69.5(b) of the Commission’s Rules filed by Feature Group IP, WC Docket No. 07-256 p. 20 (“voice-embedded IP-PSTN communications represent the evolution away from traditional circuit-switched technologies”); *IP-Enabled Services, Notice of Proposed Rulemaking*, 19 FCC Rcd 4863 (2004), para. 1 (“Carriers have begun to realize efficiencies associated with utilization of IP in both the backbone and the last mile of their networks. Customers are beginning to substitute IP-enabled services for traditional telecommunications services and networks...”); Petition of AT&T for Interim Declaratory Ruling and Limited Waivers, WC Docket No. 08-152, p. 21 (“It is thus ‘inevitable’ that ‘voice is moving to IP.’”).

<sup>14</sup> For example, “One of the most important benefits of developing VoIP technology, such as a softswitch, is the significant reduction in your network costs ... .” Business Development by John Staurulakis, Inc. at [www.jsitel.com](http://www.jsitel.com). “Softswitch is cheaper, simpler, smaller and more convenient than conventional telephone switches ... .” at [www.softswitches.net](http://www.softswitches.net). “A softswitch is cheaper to deploy than a traditional switch ... .”, *Bell Labs: Life in the Crown Jewel*, by Narain Gehani, Silicon Press, 2003.



termination), and the fact that the current packet technology is less costly than the circuit-switched networks underlying the UNE TELRIC rates, the Commission can reasonably conclude that a rate cap of \$0.0007 per minute provides generous compensation for traffic termination.

## ATTACHMENT 1

A SURVEY OF UNBUNDLED  
NETWORK ELEMENT PRICES  
IN THE UNITED STATES  
(Updated March 2006)

Billy Jack Gregg  
Director  
Consumer Advocate Division  
Public Service Commission  
of West Virginia

Table 1

# **UNBUNDLED NETWORK ELEMENT RATE COMPARISON MATRIX**

All Rates for RBOC in each State Unless Otherwise Noted

Updated March 2006

State Access Lines	Company	Density Zones	Loop Rate (per Month)	Port Rate (per Month)	Switching (per MOU)	Tandem Switching and Transport (per MOU)
Alabama	BS	1	\$12.58	\$1.38	\$0.0007025	\$0.00010
		2	\$21.05			Tandem Switching
		3	\$34.34			\$0.0003224
1,774,375		Avg	\$17.60	\$3.36 w/ all features		Common Transport
Alaska	ATU	1	\$18.64	\$4.27	\$0.006595	\$0.004712
151,826						Tandem Switching
	ACS	1	\$19.19	\$1.38	\$0.00203	\$0.000416
37,475						Termination
						\$0.00155
						Tandem Switching
						\$0.00023
						Common Transport
Arizona	QW	1	\$9.05	\$1.61	\$0.0009695	\$0.000550
		2	\$14.84			Tandem Switching
		3	\$36.44			\$0.0008236
2,365,023		Avg	\$12.12			Common Transport
Arkansas	SBC	3	\$16.00	\$2.61	\$0.001310	\$0.000789
		2	\$18.70		\$0.001690	Tandem Switching
		1	\$22.02		\$0.002530	\$0.000157-\$0.000196
919,866		Avg	\$17.21		\$0.001507	Common Transport
California	SBC	1	\$9.48	\$4.29	Included in port rate	\$0.000453
		2	\$12.79			Tandem Switching
		3	\$26.43			\$0.001249
16,509,867		Avg	\$11.73			Common Transport
Colorado	QW	1	\$5.91	\$1.15	\$0.00161	\$0.00069
		2	\$12.31	w/all features		Tandem Switching
		3	\$32.74			\$0.00111
2,468,886		Avg	\$15.85			Common Transport

\*Stand-alone rates. Loop and port combination rates used in UNE-P shown on Table 1A.

Table 1

State Access Lines	Company	Density Zones	Loop Rate (per Month)	Port Rate (per Month)	Switching (per MOU)	Tandem Switching and Transport (per MOU)
Connecticut  2,110,570	SBC		\$14.41 Statewide Rate	\$0.00 Included in switching rate	\$0.007360 On-Net** \$0.003576 Off-Net	\$0.006110 Tandem Switching Off-net
D.C. *** 791,292	VZ	1	\$8.49	\$1.55	\$0.00300	\$0.002532 Tandem Switching \$0.000405 fixed \$0.000005 per mile Common Transport
Delaware  546,439	VZ	1 2 3  Avg	\$10.07 \$13.13 \$16.67  \$12.03	\$2.23	\$0.002507 Originating \$0.001330 Terminating	\$0.0006688 Tandem Switching \$0.0001221 fixed \$0.000002 per mile Common Transport
Florida  6,063,101	BS	1 2 3  Avg	\$10.69 \$15.20 \$26.97  \$15.27 *	\$1.40   \$3.66 w/all features *	\$0.0007662	\$0.0001319 Tandem Switching \$0.0004372 Common Transport
Georgia  3,727,530	BS	1 2 3  Avg	\$10.51 \$15.85 \$31.97  \$13.70 *	\$1.09   \$1.87 w/all features *	\$0.0006153	\$0.0000972 Tandem Switching \$0.0001914 Common Transport
Hawaii  664,194	HI	Oahu Maui Hawaii	\$10.44 \$17.23 \$21.91	\$2.69	\$0.0076074	\$0.0012572 Tandem Switching \$0.0002710 Common Transport
Idaho  514,983	QW	1 2 3  Avg	\$15.65 \$23.76 \$40.50  \$20.21	\$1.34   \$4.76 w/all features	\$0.001343	\$0.00069 Tandem Switching \$0.00111 Common Transport

\*Stand-alone rates. Loop and port combination rates used in UNE-P shown on Table 1A.

\*\* On-Net rate charged only on originating minutes.

\*\*\* Rates currently available per 271 agreement.

Table 1

State Access Lines	Company	Density Zones	Loop Rate (per Month)	Port Rate (per Month)	Switching (per MOU)	Tandem Switching and Transport (per MOU)
Illinois  6,183,446	SBC	A	\$5.17	\$3.18	Included in port rate	\$0.000215 Tandem Switching \$0.000304 Common Transport
		B	\$12.40			
		C	\$14.91			
		Avg	<b>\$13.42</b>			
Indiana  2,143,137	SBC	3	\$12.00	\$4.08	Included in port rate	\$0.000295 Tandem Switching \$0.000513 Common Transport
		2	\$12.50			
		1	\$11.50			
		Avg	<b>\$11.96</b>			
Iowa  985,834	QW	1	\$12.69	\$1.15	\$0.001558	\$0.00069 Tandem Switching \$0.00111 Common Transport
		2	\$15.14			
		3	\$26.39			
		Avg	\$15.94			
Kansas  1,133,026	SBC	3	\$11.86	<b>\$2.61</b>	\$0.00131 \$0.00169 \$0.00253 <b>\$0.001517</b>	\$0.000789 Tandem Switching \$0.000157-\$0.000196 Common Transport
		2	\$13.64			
		1	\$23.34			
		Avg	<b>\$13.53</b>			
Kentucky  1,091,285	BS	1	\$10.56	\$1.49	\$0.001197	\$0.0001940 Tandem Switching \$0.0007466 Common Transport
		2	\$15.34			
		3	\$31.11			
		Avg	\$18.04 *			
Louisiana  2,080,847	BS	1	\$12.90	\$1.52	\$0.001868	\$0.0001067 Tandem Switching \$0.0003748 Common Transport
		2	\$23.33			
		3	\$48.43			
		Avg	\$17.30 *			
Maine  662,838	VZ	1	\$11.44	\$0.94	\$0.00168	\$0.001221 Tandem Switching \$0.001940 Day \$0.000322 Eve \$0.00000 Night & Weekend Common Transport
		2	\$13.47			
		3	\$18.75			
		Avg	\$16.18			

\*Stand-alone rates. Loop and port combination rates used in UNE-P shown on Table 1A.

Table 1

State Access Lines	Company	Density Zones	Loop Rate (per Month)	Port Rate (per Month)	Switching (per MOU)	Tandem Switching and Transport (per MOU)
Maryland	VZ	A1 A2 B1 B2	\$10.13 \$10.18 \$21.92 \$14.45	\$1.41	\$0.001325 Originating \$0.001162 Terminating	\$0.000248 Tandem Switching \$0.001341 Common Transport
3,598,762		Avg	\$12.00			
Massachusetts	VZ	1 2 3 4	\$10.81 \$11.37 \$15.41 \$24.32	\$2.22	\$0.000825 Originating \$0.000724 Terminating	\$0.000043 Tandem Switching \$0.000268 Common Transport
3,775,033		Avg	\$13.93			
Michigan	SBC	A B C	\$9.13 \$10.77 \$14.20	\$4.46	Included in port rate	\$0.000198 Tandem Switching \$0.00083 Common Transport
4,732,342		Avg	\$11.76			
Minnesota	QW	1 2 3 4	\$5.83 \$8.95 \$10.62 \$15.66	\$3.12 w/all features	Included in port rate	\$0.00112 Tandem Switching \$0.000613 Common Transport
1,887,050		Avg	\$12.86			
Mississippi	BS	1 2 3 4	\$12.03 \$16.87 \$25.68 \$43.85	\$1.41	\$0.0010269	\$0.0001723 Tandem Switching \$0.0004541 Common Transport
1,232,062		Avg	\$23.12 *	\$3.97 w/all features *		
Missouri	SBC	1 2 3 4	\$12.71 \$18.64 \$19.74 \$16.41	\$2.74 \$2.97 \$3.47 \$3.25	\$0.001620 \$0.001949 \$0.002807 \$0.002391	\$0.001231 Tandem Switching \$0.000132 - \$0.000246 Common Transport
2,362,597		Avg	\$15.76	\$2.96	\$0.001953	
Montana	QW	1 2 3 4	\$23.10 \$23.90 \$27.13 \$29.29	\$1.58	\$0.001574	\$0.000690 Tandem Switching \$0.001110 Common Transport
332,734		Avg	\$23.98			

\*Stand-alone rates. Loop and port combination rates used in UNE-P shown on Table 1A.

Table 1

State Access Lines	Company	Density Zones	Loop Rate (per Month)	Port Rate (per Month)	Switching (per MOU)	Tandem Switching and Transport (per MOU)
Nebraska  367,505	QW	1 2 3  Avg	\$12.14 \$28.11 \$62.50  \$17.51	\$2.47	\$0.00126	\$0.00069 Tandem Switching \$0.001110 Common Transport
Nevada  366,617	SBC	1 2 3  Avg	\$11.77 \$22.64 \$66.25  \$21.45	\$2.63	\$0.00161	\$0.00171 Tandem Switching \$0.00727 Common Transport
New Hampshire  697,781	VZ	1 2 3  Avg	\$11.97 \$16.04 \$25.00  \$16.21	\$0.71	\$0.002425 Day \$0.003199 Eve \$0.001343 Night	\$0.000737-\$0.000684 Tandem Switching \$0.000328-\$0.000565 Common Transport
New Jersey  5,764,974	VZ	1 2 3  Avg	\$8.81 \$10.42 \$11.82  \$10.32	\$2.72	\$0.001399 Originating \$0.001364 Terminating	\$0.000772 Tandem Switching \$0.000093 Fixed \$0.0000006 per mile Common Transport
New Mexico  794,410	QW	1 2 3  Avg	\$16.27 \$20.86 \$30.85  \$21.62	\$2.06  \$10.96 w/all features	0.002518	0.000853 Tandem Switching \$0.0012730 Common Transport
New York  10,176,986	VZ	1 2 3  Avg	\$7.70 \$11.31 \$15.51  \$11.49	\$4.57  *	\$0.001147 Originating \$0.00111 Terminating	\$0.000481 Tandem Switching \$0.000203 Common Transport
North Carolina  2,246,305	BS	1 2 3  Avg	\$10.82 \$16.21 \$24.08  \$12.42	\$2.19 **	\$0.001500	\$0.0006 Tandem Switching \$0.00034 Common Transport
North Dakota  179,077	QW	1 2 3  Avg	\$14.53 \$24.49 \$55.47  \$16.71	\$2.58  \$6.35 w/all features	\$0.001475	\$0.00069 Tandem Switching \$0.001110 Common Transport

\*Stand-alone rates. Loop and port combination rates used in UNE-P shown on Table 1A.

\*\*Rate no longer available in new agreements



Table 1

State Access Lines	Company	Density Zones	Loop Rate (per Month)	Port Rate (per Month)	Switching (per MOU)	Tandem Switching and Transport (per MOU)
Ohio  3,721,182	SBC	B	\$9.46	\$5.61	\$0.000779	\$0.000213
		C	\$12.52			Tandem Switching
		D	\$13.65			\$0.000629
		Avg	\$12.64			Common Transport
Oklahoma  1,384,536	SBC	3	\$12.14	\$3.18	\$0.002268	\$0.000956
		2	\$13.65			Tandem Switching
		1	\$26.25			\$0.000266 - \$0.000499
		Avg	\$16.08			Common Transport
Oregon  1,255,243	QW	1	\$13.95	\$1.14	\$0.0013301	\$0.00069
		2	\$25.20			Tandem Switching
		3	\$56.21			\$0.001040
		Avg	\$15.00			Common Transport
Pennsylvania  5,435,861	VZ	1	\$6.77	\$1.68	\$0.001373 Originating \$0.001175 Terminating	\$0.000120
		2	\$9.25			Tandem Switching
		3	\$12.39			\$0.000206 fixed
		4	\$22.39			\$0.000010 per mile
Rhode Island  491,107	VZ	1	\$11.19	\$1.86	\$0.001358 Originating \$0.001192 Terminating	\$0.000274
		2	\$15.44			Tandem Switching
		3	\$19.13			\$0.000291
		Avg	\$13.93			Common Transport
South Carolina  1,368,409	BS	1	\$14.94	\$1.65	\$0.0010519	\$0.0001634
		2	\$21.39			Tandem Switching
		3	\$26.72			\$0.0004095
		Avg	\$17.60			Common Transport
South Dakota  201,450	QW	1	\$15.20	\$1.84	\$0.000702	\$0.000690
		2	\$16.56			Tandem Switching
		3	\$21.77			\$0.00138786
		Avg	\$18.84			Common Transport
Tennessee  2,395,844	BS	1	\$11.74	\$1.89	\$0.0008041	\$0.0009778
		2	\$17.59			Tandem Switching
		3	\$29.37			\$0.00038
		Avg	\$14.92			Common Transport

\*Stand-alone rates. Loop and port combination rates used in UNE-P shown on Table 1A.

Table 1

State Access Lines	Company	Density Zones	Loop Rate (per Month)	Port Rate (per Month)	Switching (per MOU)	Tandem Switching and Transport (per MOU)
<b>Texas</b>    8,778,111	SBC	3	\$12.14	\$2.58	\$0.0014244	\$0.000794
		2	\$13.65	\$3.47	\$0.0012691	Tandem Switching
		1	\$18.98	\$4.05	\$0.0011973	\$0.000123-\$0.000144
				\$5.21	\$0.0021160	Common Transport
		Avg	<b>\$14.32</b>	\$3.22	\$0.0014386	
Utah   964,276	QW	Urban	\$11.33	\$3.56	\$0.001427	\$0.000671-\$0.000694
		Sub	\$12.22	Port rate	\$0.001654	Tandem Switching
		Rural	\$19.57	includes	\$0.001798	\$0.001039
		Avg	\$12.97	unlimited switching	Standalone rates	Common Transport
Vermont   342,946	VZ	1	\$7.72	\$1.03	\$0.004003	\$0.000921
		2	\$8.35			Tandem Switching
		3	\$21.63			\$0.000630
		Avg	\$14.41			Common Transport
Virginia   3,153,885	VZ	1	\$10.74	\$1.30	\$0.002643	\$0.000548
		2	\$16.45		Originating	Tandem Switching
		3	\$29.40		\$0.001331	\$0.000114
		Avg	\$13.76		Terminating	Common Transport
Washington   2,248,631	QW	1	\$11.26	\$1.34	\$0.001178	\$0.00069
		2	\$13.63			Tandem Switching
		3	\$16.92			\$0.000760
		4	\$28.23			Common Transport
		5	\$67.77			
		Avg	\$16.90			
West Virginia   808,623	VZ	1	\$14.49	\$1.60	\$0.002586	\$0.0002394
		2	\$22.04		Originating	Tandem Switching
		3	\$35.00		\$0.002505	\$0.00067
		4	\$43.44		Terminating	Common Transport
		Avg	\$20.41			
Wisconsin   1,848,578	SBC	A	\$11.53	\$3.83	Included in port rate	\$0.000229
		B	\$13.17			Tandem Switching
		C	\$15.86			\$0.000485
		Avg.	\$12.25			Common Transport

Table 1

State Access Lines	Company	Density Zones	Loop Rate (per Month)	Port Rate (per Month)	Switching (per MOU)	Tandem Switching and Transport (per MOU)
Wyoming	QW	BRA	\$19.91	\$2.64	\$0.000920	\$0.000690
		1	\$26.94			Tandem Switching
		2	\$30.13			\$0.001110
		3	\$40.98			Common Transport
244,238		Avg	\$23.39			

Note: Access line data from NECA USF submission dated September 30, 2005